Algebra 2

Topic 3 // Elimination A

N: Key

D:

P: 1 2 3 4 5 6

Standards: 2.0

Holt: 3-2 Solving Linear Systems p. 190

1.) $2x + 5y = 17$
$6x - 5y = -9$

$8x = 8$, $x = 1$

$2(1) + 5y = 17$
$2 + 5y = 17$
$-2 \quad -2$
$5y = 15$
$y = 3$

(1, 3)

2.) $7x + 2y = 10$
$-7x + y = -16$

$3y = -6$, $y = -2$

$7x + 2(-2) = 10$
$7x - 4 = 10$
$+4 \quad +4$
$7x = 14$
$x = 2$

(2, -2)

3.) $2x - 3y = 61$
$6x + 3y = -21$

$8x = 40$, $x = 5$

$2(5) - 3y = 61$
$10 - 3y = 61$
$-10 \quad -10$
$-3y = 51$
$y = -17$

(5, -17)

4.) $8x - 11y = 20$
$5x + 11y = -59$

$13x = -39$, $x = -3$

$8(-3) - 11y = 20$
$-24 - 11y = 20$
$+24 \quad +24$
$-11y = 44$
$y = -4$

(-3, -4)

5.) $2x + 9y = -9$
$-4x - 9y = 27$

$2x = 18$, $x = 9$

$2(9) + 9y = -9$
$18 + 9y = -9$
$-18 \quad -18$
$9y = -27$
$y = -3$

(9, -3)

6.) $10x + 3y = 20$
$-10x + 5y = 60$

$8y = 80$, $y = 10$

$10x + 3(10) = 20$
$10x + 30 = 20$
$-30 \quad -30$
$10x = -10$
$x = -1$

(-1, 10)

7.) $12x - 40y = -100$
$4x + 40y = 20$

$16x = -80$, $x = -5$

$4(-5) + 40y = 20$
$-20 + 40y = 20$
$+20 \quad +20$
$40y = 40$
$y = 1$

(-5, 1)

8.) $7x + 15y = 32$
$5x - 15y = 100$

$12x = 132$, $x = 11$

$5(11) - 15y = 100$
$55 - 15y = 100$
$-55 \quad -55$
$-15y = 45$
$y = -3$

(11, -3)

9.) $10x + 25y = -110$
$-10x - 3y = 22$

$22y = -88$, $y = -4$

$10x + 25(-4) = -110$
$10x - 100 = -110$
$+100 \quad +100$
$10x = -10$, $x = -1$

(-1, -4)

10.) $5x - 6y = -32$
$3x + 6y = 48$

$8x = 16$, $x = 2$

$5(2) - 6y = -32$
$10 - 6y = -32$
$-10 \quad -10$
$-6y = -42$
$y = 7$

(2, 7)